



Internal details shown are representative of typical cylinder construction. Variations in design are necessary in some combinations of bore, rod, and mounting style due to space limitations.

## Typical Construction Features Of Lynair Series "A" Air Cylinders

### INDUSTRY STANDARD MOUNTING DIMENSIONS

LYNAIR Series "A" models conform to ANSI Standard B93.15-1971 for Mounting Dimensions of Square Head Industrial Fluid Power Cylinders and meet or exceed JIC Pneumatic Standards.

### PISTON ROD

Precision ground, polished, and hard chrome plated piston rods made from high yield strength steel are offered with the choice of seven end style options. Male rod threads thru 1½ diameter are rolled for maximum strength and uniformity. Four wrench flats are provided to aid in making the rod end connection. The rod surface is reduced in size in area of flats to eliminate contact with seals at assembly.

### ADJUSTABLE CUSHION OPTION

Cushions are optional at either one or both ends of the cylinder. When provided, close fitting surfaces of mating components trap air which decelerates the piston speed before reaching the end of stroke position. Flush fitting Cushion Screw permits adjustment in deceleration rate while interchangeable Ball Check aids start up upon reversal of travel direction.

### CYLINDER PORTS

NPTF Ports are unobstructed permitting use of maximum flow area.



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### PRESSURE RATING

Series "A" air cylinders are rated for maximum service to 250 PSI.

### ROD BEARING/ REMOVABLE RETAINERS

Precision machined bronze bearing maintains concentricity between rod and bore while providing support for V-Ring seal Set. Bearing Retainer construction allows removal of seals for maintenance purposes without tie rod disassembly in most models.

### ROD SEALS

Pressure energized multiple lip packing set consists of three Buna-N V-rings supported by a bronze male adapter which aids seal expansion in response to pressure. Seals are self compensating to adjust for normal wear while providing long lasting, low friction service.

### ROD WIPER

Double Lip Wiper cleans rod surface of contaminants and prevents entry of harmful particles into sensitive bearing and seal areas. Integral cup form on inboard side of wiper serves as secondary seal to insure leak-free performance.

### LUBRICATION

All Series "A" cylinders are pre-lubricated at assembly with grease containing molybdenum disulfide for added oxidation stability and resistance to corrosion. Pre-lubrication is helpful for use in non-lubricated pneumatic systems, but properly filtered, moisture free, lubricated air is recommended for maximum service life.

### EXTERIOR MATERIALS/ EXTERNAL FINISH

Front and Rear Heads are accurately machined from precision square steel blocks. Cylinder Tubes, Bearing Retainers, and mountings are constructed of steel for maximum strength and durability.

Cylinders have enamel finish on exterior with mounting and machined surfaces protected by anti-rust film lubricant at time of shipment.

### PISTON/SECURELY LOCKED

One piece, high tensile cast iron piston provides maximum bearing surface. Piston is secured by self-locking nut when sizes permit. Alternate piston designs are retained by hex nut or internal threads are secured with anaerobic adhesive and pinned with positive locking device

### PISTON SEALS

Low friction, self compensating cup type seals provide long, trouble free service. Cylinder sizes thru 6" Bore have seals of lubricated (silicone) urethane material. Other bore sizes are equipped with seals of Buna-N. Piston seals are elastic and snap into piston grooves for easy installation.

### CYLINDER TUBE

Steel tubing is honed to 15 micro inch finish and hard chrome plated on the bore surface to resist wear and promote optimum seal life. Buna-N Square-rings (1½ thru 6 bores) or 'O'-Rings (8 thru 14 bores) provide positive tube end seal.

### TIE RODS

Made from steel having 100,000 PSI minimum yield strength (125,000 PSI for diameters larger than ½") with rolled threads for maximum strength and uniformity.